

TOLCO™ Fig. 980 - Universal Swivel Sway Brace Attachment - 3/8" to 3/4" (FM Approved)

Size Range: One size fits bracing pipe 1" (25mm) thru 2" (50mm), B-Line series 12 gauge (2.6mm) channel, and all structural steel up to 1/4" (31.7mm) thick.

Material: Steel

Function: Multi-functional attachment to structure or braced pipe fitting.

Features: This product's design incorporates a concentric attachment opening which is critical to the performance of structural seismic connections. NFPA 13 (2016) 9.3.5.8.4 indicates clearly that fastener table load values are based only on concentric loading. Mounts to any surface angle. Break off bolt head assures verification of proper installation.

Installation: Fig.980 is the structural or transitional attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO "braced pipe" attachment, Fig. 1000, 1001, 3000, 4L, 4LA, or other TOLCO approved attachment to pipe to form a complete bracing assembly. NFPA 13 guidelines should be followed.

To Install: Place the Fig. 980 onto the "bracing pipe". Tighten the set bolt until the head breaks off. Attachment can pivot for adjustment to proper brace angle.

Approvals: —Approved by Factory Mutual Engineering (FM). Included in our Seismic Engineering Guidelines approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to our Seismic Engineering Guidelines, OPM-0052-13. For UL Listed information refer to UL Listed page 60.

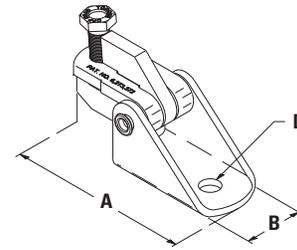
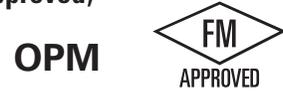
Note: Fig. 980 Swivel Attachment and Fig. 1000, 1001, 4L, 4LA or other TOLCO approved attachment to pipe that make up a sway brace system of bracing materials which satisfies the requirements of Factory Mutual Engineering and the National Fire Protection Association (NFPA)

Finish: Plain, Electro-Galvanized or Stainless Steel. Contact customer service for alternative finishes.

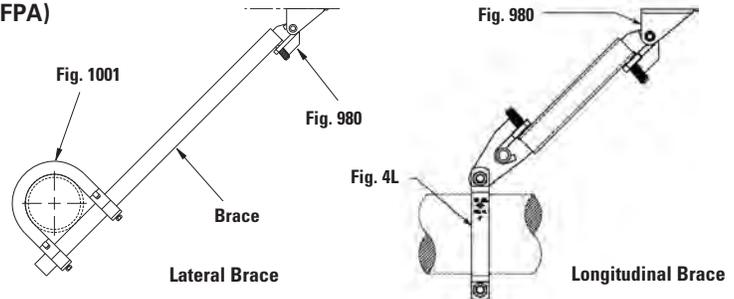
Order By: Figure number and finish.

Pat. #6,273,372, Pat. #6,517,030, Pat. #6,953,174,
Pat. #6,708,930, Pat. #7,191,987, Pat. #7,441,730,
Pat. #7,669,806

Designed to meet or exceed requirements of FM DS 2-8.



Set Bolt Included
Mounting Hardware Is Not Included



Part Number	Mtg. Hdw. Size in. (mm)	Mounting Hole			Max. Design Load** (FM)				Approx. Wt./100 lbs. (kg)
		A in. (mm)	B in. (mm)	D in. (mm)	30° - 44° lbs./ (kN)	45° - 59° lbs./ (kN)	60° - 74° lbs./ (kN)	75° - 90° lbs./ (kN)	
980-3/8	3/8" (9.5)	5 1/4" (133.3)	1 7/8" (47.6)	13/32" (10.3)					149 (67.6)
980-1/2 *	1/2" (12.7)	5 1/4" (133.3)	1 7/8" (47.6)	17/32" (13.5)	1320 (5.87)	1970 (8.76)	2310 (10.27)	2550 (11.34)	148 (67.1)
980-5/8	5/8" (15.9)	5 1/4" (133.3)	1 7/8" (47.6)	1 1/16" (17.5)					147 (66.7)
980-3/4	3/4" (19.0)	5 1/4" (133.3)	1 7/8" (47.6)	1 3/16" (20.5)					146 (66.2)

* Standard size.

** Installed with 1" or 1 1/4" Schedule 40 brace pipe.

FM Approved design loads are based on ASD design method.

Important! - For load information when using Fig. 980 with pre-installed or post-installed concrete anchors in compliance with NFPA 13 (2016) or ASCE 7-10, including prying factors, see page 106.

Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.